

ABSTRACT OF THE DISCLOSURE

5           A method for protecting a peptide from peptidase activity *in vivo*,  
the peptide being composed of between 2 and 50 amino acids and  
having a C-terminus and an N-terminus and a C-terminus amino acid  
and an N-terminus amino acid is described. In the first step of the  
method, the peptide is modified by attaching a reactive group to the C-  
10 terminus amino acid, to the N-terminus amino acid, or to an amino acid  
located between the N-terminus and the C-terminus, such that the  
modified peptide is capable of forming a covalent bond *in vivo* with a  
reactive functionality on a blood component. In the next step, a covalent  
bond is formed between the reactive group and a reactive functionality  
15 on a blood component to form a peptide-blood component conjugate,  
thereby protecting said peptide from peptidase activity. The final step of  
the method involves the analyzing of the stability of the peptide-blood  
component conjugate to assess the protection of the peptide from  
peptidase activity.

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